

What is claimed is:

1. A power supply control device for a mobile robot system with a travel mechanism and a battery,
5 comprising:
a charging/discharging circuit electrically controlling charge and discharge of the battery;
a control circuit checking remaining power in the battery, when the control circuit determines that the
10 remaining power is insufficient, prohibiting an operation of the travel mechanism, issuing an alarm indicating an insufficient remaining power and instructing the charging/discharging circuit to charge the battery, and when the control circuit determines
15 that the remaining power is sufficient, permitting the operation of the travel mechanism; and
a computer executing a program controlling a series of robot system operations, and on receipt of the alarm from the control circuit, issuing a charge
20 request message to a user.
2. A power supply control device for a mobile robot system with a drive mechanism and a battery, comprising:
a charging/discharging circuit with a current
25 path that branches current from a power supply adaptor

to the battery and to the drive mechanism, supplying current to the drive mechanism from the power supply adaptor while charging the battery with current supplied from the power supply adaptor; and

5 a control circuit instructing the
charging/discharging circuit to charge the battery, and
permitting an operation of the drive mechanism during
charge.

10 3. A power supply control device for a mobile robot
system with a battery and a control logic unit,
comprising:

 a charging/discharging circuit with a current
path that branches current from a power supply adaptor
15 to the battery and to the logic unit, charging the
battery with current supplied from the power supply
adaptor when the logic unit is not operating, and
supplying current to the logic unit from the power supply
adaptor while charging the battery with current supplied
20 from the power supply adaptor when the logic unit is
operating; and

 a control circuit instructing the
charging/discharging circuit to charge the battery.

25 4. A power supply control device for a mobile robot

system with a drive mechanism and a battery,
comprising:

a computer executing a program controlling a
series of robot system operations; and

5 a switch detecting whether the computer is driven,
and when the computer is not driven, automatically
cutting off power supply to the drive mechanism from
the battery.

10 5. A power supply control method for a mobile robot
system with a travel mechanism and a battery,
comprising:

checking remaining power in the battery;

prohibiting an operation of the travel mechanism
15 and issuing a charge request message to a user when the
checking determines that the remaining power is
insufficient, and charging the battery when the user
turns a power supply adaptor on; and

permitting the operation of the travel mechanism
20 when the checking determines that the remaining power
is sufficient.

6. A power supply control method for a mobile robot
system with a drive mechanism and a battery, comprising
25 supplying current to the drive mechanism from a

power supply adaptor while charging the battery with current supplied from the power supply adaptor by using a current path that branches current from the power supply adaptor to the battery and to the drive mechanism.

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7. A power supply control method for a mobile robot system with a battery and a control logic unit, comprising

charging the battery with current supplied from
10 a power supply adaptor by using a current path that branches current from the power supply adaptor to the battery and to the logic unit when the logic unit is not operating, and supplying current to the logic unit from the power supply adaptor while charging the battery
15 with current supplied from the power supply adaptor by using the current path when the logic unit is operating.

8. A power supply control method for a mobile robot system with a drive mechanism and a battery, comprising:

20 detecting whether a computer that executes a program controlling a series of robot system operations is driven;

automatically cutting off power supply to the drive mechanism from the battery when the computer is
25 not driven.

9. A power supply control device for a mobile robot system with a travel mechanism and a battery, comprising:

5 a charging/discharging circuit means for electrically controlling charge and discharge of the battery;

a control means for checking remaining power in the battery, when the control means determines that the
10 remaining power is insufficient, prohibiting an operation of the travel mechanism, issuing an alarm indicating an insufficient remaining power and instructing the charging/discharging circuit means to charge the battery, and when the control means
15 determines that the remaining power is sufficient, permitting the operation of the travel mechanism; and

a computer means for executing a program controlling a series of robot system operations, and on receipt of the alarm from the control means, issuing
20 a charge request message to a user.

10. A power supply control device for a mobile robot system with a drive mechanism and a battery, comprising:

a charging/discharging circuit means with a
25 current path that branches current from a power supply

adaptor to the battery and to the drive mechanism, for supplying current to the drive mechanism from the power supply adaptor while charging the battery with current supplied from the power supply adaptor; and

5 a control means for instructing the charging/discharging circuit to charge the battery, and permitting an operation of the drive mechanism during charge.

10 11. A power supply control device for a mobile robot system with a battery and a control logic unit, comprising:

 a charging/discharging circuit means with a current path that branches current from a power supply
15 adaptor to the battery and to the logic unit, for charging the battery with current supplied from the power supply adaptor when the logic unit is not operating, and supplying current to the logic unit from the power supply adaptor while charging the battery with current
20 supplied from the power supply adaptor when the logic unit is operating; and

 a control means for instructing the charging/discharging circuit to charge the battery.

25 12. A power supply control device for a mobile robot

system with a drive mechanism and a battery, comprising:

a computer means for executing a program
controlling a series of robot system operations; and

a switch means for detecting whether the computer
5 is driven, and when the computer is not driven,
automatically cutting off power supply to the drive
mechanism from the battery.